

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 32 and 41 have been amended. Support for the amendments is provided for example in Figs. 5 and 7 and their accompanying descriptions in the specification. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

Claims 32, 35-41, and 44-49 were rejected, under 35 USC §103(a), as being unpatentable over Haartsen (US 2002/0126692) in view of Montano et al. (US 7,280,518) and Cain (US 2004/0028018). To the extent that these rejections may be deemed applicable to the amended claims presented herein, the Applicants respectfully traverse as follows.

Claim 32 now recites a radio communication method that provides a time slot for higher priority use by a given radio communication device, when another radio communication device and the given radio communication device are contending for the same higher-priority communication period. According to this method, the given radio communication device divides the time slot whose period is in contention into multiple time slots, the two radio communication devices exchange identification information, and the given radio communication device selects one of the multiple time slots based on a comparison result of its identification information with that of the other radio communication device. The claimed subject matter provides an advantage of providing a shorter priority time slot to a radio communication device that is unsuccessfully contending for a longer priority time slot.

To facilitate understanding of the claimed subject matter, consider the following non-limiting situation: (1) a beacon period is divided into two time slots 1 and 2, (2) one communication device uses time slot 1 for priority communication, and (3) two other communication devices are contending to use time slot 2 for priority communication. In this situation, the two contending communication devices may each divide time slot 2 into two shorter time slots, time slots 3 and 4, and select one of time slots 3 and 4 for priority communication based on exchanged information, such as priority information. As a result, the communication device using time slot 1 may continue to operate as though only time slots 1 and 2 exist and the two other communication devices divide time slot 2 into multiple time slots that may be shared without contention by these two communication devices.

The Office Action proposes that Cain discloses dividing a communication frame by a divisor to determine the number of time slots within the frame and increasing the divisor, when additional time slots are desired, so as to increase the number of time slots available within the frame (see Office Action page 5, lines 3-6 of last paragraph). The Office Action further proposes that Cain discloses selecting a time slot among the increased time slots (see page 5, lines 6-8).

Although Cain may disclose selecting a time slot among an increased number of time slots allocated to a frame, as proposed in the Office Action, Cain does not disclose the Applicants' claimed subject matter of selecting a time slot based on a comparison result of identification information exchanged between two communication devices contending for a communication period.

Moreover, Cain discloses that each mobile communication device takes its turn transmitting within its respective time slot of the frame (see Cain paragraph [0005], last sentence). Thus, Cain discloses that all time slots have equal periods and that each radio communication device recognizes the same number of time slots within a common frame. Such a result does not necessarily occur with the Applicants' claimed subject matter, as discussed in above.

Haartsen and Montano are not cited in the Office Action for supplementing the teachings of Cain with respect to the above-mentioned subject matter distinguishing claim 32 from Cain's disclosure.

Accordingly, the Applicants submit that Haartsen, Montano and Cain, even if combined as proposed in the Office Action, still would lack the above-noted features of claim 32, and thus these references, considered individually or in combination, do not render obvious the subject matter now defined by claim 32. Independent claim 41 now similarly recites the above-mentioned subject matter distinguishing method claim 32 from the applied references, but with respect to an apparatus. Therefore, allowance of claims 32 and 41 is deemed to be warranted. It is submitted that the dependent claims are allowable due to their dependence from an allowable independent claim and also due to their recitation of subject matter that provides an independent basis for their individual allowability.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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